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EXAMINER	
YAO, KWANG BIN	
ART UNIT	**PAPER NUMBER**
2667	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/960,404	NOGUCHI ET AL.	
	Examiner	Art Unit	
	Kwang B. Yao	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 September 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure s 12 and 13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 11 is objected to because of the following informalities: it appears that claim 11 should depend on claim 10 other than claim 3. Appropriate correction is required.

3. Claims 3-23 are objected to because of the following informalities: it is not clear whether the numbers in parentheses following the claim numbers are claimed limitations or something else. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 8-10, 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al. (US 2001/0055286).

Lin et al. discloses a communication system comprising the following features: regarding claim 1, a wireless data communication network switching device being provided in a mobile computer (Fig. 5, RSS 501) on which a client (Fig. 5, phone 513, Internet user 109) is deployed and which is capable of connecting to a plurality of wireless data communication networks (Fig. 5, ISP 110, PSTN 111), operating as a intermediary mechanism for the client (Fig. 5, phone 513, Internet user 109), and controlling switching of the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a server (Fig. 5, RBS 301) side switching device operating as a intermediary mechanism for a server (Fig. 5, RBS 301) with which the client (Fig. 5, phone 513, Internet user 109) communicates, the device comprising: means for releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the server (Fig. 5, RBS 301) side switching device; means for connecting to a wireless data communication network to which the communication is to be switched and acquiring a new communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) assigned in response to the connection, after the release is complete; means for notifying the server (Fig. 5, RBS 301) side switching device of the communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]); and means for resuming (Fig. 12,

Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the server (Fig. 5, RBS 301) side switching device following the notification; regarding claim 2, wherein the means for releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) transmits a marker indicative of the last data when the session is suspended to inform the server (Fig. 5, RBS 301) side switching device of the data that should have been received when the session is suspended; regarding clam 8, means for transforming discrete communication traffics into a continuous communication traffic by holding (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) data to be transmitted for a period; regarding claim 9, means for detecting whether a new wireless data communication network is made available; and means for determining whether the new wireless data communication network is advantageous in terms of service (page 5, [0073]) charge over a currently-used wireless data communication network and issuing a switching request to switch to the new wireless data communication network when it is determined advantageous; regarding claim 10, a wireless data communication network switching device operating as a intermediary mechanism for a server (Fig. 5, RBS 301) and controlling switching of wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a client (Fig. 5, phone 513, Internet user 109) side switching device operating as a intermediary mechanism for a client (Fig. 5, phone 513, Internet user 109) with which the server (Fig. 5, RBS 301) communicates, the device comprising: means for transferring a service (page 5, [0073]) request to the server (Fig. 5, RBS 301) by identifying a server (Fig. 5, RBS 301) pointed to by a port number specified in the service (page 5, [0073]) request issued by the client (Fig. 5, phone 513, Internet user 109); means for releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the

wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device; means for acquiring a communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) for the client (Fig. 5, phone 513, Internet user 109) side switching device assigned by a wireless data communication network switched by the client (Fig. 5, phone 513, Internet user 109) side switching device in response to the switching request; and means for resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device following the acquisition; regarding claim 11, wherein the means for releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) detects a marker transmitted by the client (Fig. 5, phone 513, Internet user 109) side switching device to detect the completion of the reception of the data that should have been received when the session is suspended; regarding claim 17, a wireless data communication network switching device according to claim 10, further comprising: means for transforming discrete communication traffics into a continuous communication traffic by holding (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) data to be transmitted for a period; regarding claim 18, a wireless data communication network switching method being executed on a device which is provided in a mobile computer (Fig. 5, RSS 501) deployed a client (Fig. 5, phone 513, Internet user 109) thereon and capable of connecting to a plurality of wireless data communication networks (Fig. 5, ISP 110, PSTN 111), which operates as a intermediary mechanism for the client (Fig. 5, phone 513, Internet user 109), and which controls switching of the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a server (Fig. 5, RBS 301) side switching device operating as a intermediary mechanism for a server (Fig. 5, RBS 301)

with which the client (Fig. 5, phone 513, Internet user 109) communicates, the method comprising: releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the server (Fig. 5, RBS 301) side switching device; connecting to a wireless data communication network to which the communication is to be switched and acquiring a new communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) assigned in response to the connection, after the release is complete; notifying the server (Fig. 5, RBS 301) side switching device of the communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]); and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the server (Fig. 5, RBS 301) side switching device following the notification; regarding claim 19, a wireless data communication network switching method being executed on a device which operates as a intermediary mechanism for a server (Fig. 5, RBS 301) and which controls switching of wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a client (Fig. 5, phone 513, Internet user 109) side switching device operating as a intermediary mechanism for a client (Fig. 5, phone 513, Internet user 109) with which the server (Fig. 5, RBS 301) communicates, the method comprising: transferring a service (page 5, [0073]) request to the server (Fig. 5, RBS 301) by identifying a server (Fig. 5, RBS 301) pointed to by a port number specified in the service (page 5, [0073]) request issued by the client (Fig. 5, phone 513, Internet user 109); releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the client (Fig. 5, phone 513, Internet user 109)

side switching device; acquiring a communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) for the client (Fig. 5, phone 513, Internet user 109) side switching device assigned by a wireless data communication network switched by the client (Fig. 5, phone 513, Internet user 109) side switching device in response to the switching request; and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device following the acquisition; regarding claim 20, a wireless data communication network switching program being executed on a device which is provided in a mobile computer (Fig. 5, RSS 501) deployed a client (Fig. 5, phone 513, Internet user 109) thereon and capable of connecting to a plurality of wireless data communication networks (Fig. 5, ISP 110, PSTN 111), which operates as a intermediary mechanism for the client (Fig. 5, phone 513, Internet user 109), and which controls switching of the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a server (Fig. 5, RBS 301) side switching device operating as a intermediary mechanism for a server (Fig. 5, RBS 301) with which the client (Fig. 5, phone 513, Internet user 109) communicates, wherein the wireless data communication network switching program causes a computer to perform: releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the server (Fig. 5, RBS 301) side switching device; connecting to a wireless data communication network to which the communication is to be switched, and acquiring a new communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) assigned in response to the connection, after the release is complete; notifying the server (Fig. 5, RBS 301) side switching

device of the communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]); and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the server (Fig. 5, RBS 301) side switching device following the notification; regarding claim 21, a wireless data communication network switching program being executed on a device which operates as a intermediary mechanism for a server (Fig. 5, RBS 301) and which controls switching of wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a client (Fig. 5, phone 513, Internet user 109) side switching device operating as a intermediary mechanism for a client (Fig. 5, phone 513, Internet user 109) with which the server (Fig. 5, RBS 301) communicates, wherein the wireless data communication network switching program causes a computer to perform: transferring a service (page 5, [0073]) request to the server (Fig. 5, RBS 301) by identifying a server (Fig. 5, RBS 301) pointed to by a port number specified in the service (page 5, [0073]) request issued by the client (Fig. 5, phone 513, Internet user 109); releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device; acquiring a communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) for the client (Fig. 5, phone 513, Internet user 109) side switching device assigned by a wireless data communication network switched by the client (Fig. 5, phone 513, Internet user 109) side switching device in response to the switching request; and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device following the acquisition; regarding claim 22, a program recording medium

recording a wireless data communication network switching program being executed on a device which is provided in a mobile computer (Fig. 5, RSS 501) deployed a client (Fig. 5, phone 513, Internet user 109) thereon and capable of connecting to a plurality of wireless data communication networks (Fig. 5, ISP 110, PSTN 111), which operates as a intermediary mechanism for the client (Fig. 5, phone 513, Internet user 109), and which controls switching of the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a server (Fig. 5, RBS 301) side switching device operating as a intermediary mechanism for a server (Fig. 5, RBS 301) with which the client (Fig. 5, phone 513, Internet user 109) communicates, wherein the wireless data communication network switching program causes a computer to perform: releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the server (Fig. 5, RBS 301) side switching device; connecting to a wireless data communication network to which the communication is to be switched, and acquiring a new communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) assigned in response to the connection, after the release is complete; notifying the server (Fig. 5, RBS 301) side switching device of the communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]); and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the server (Fig. 5, RBS 301) side switching device following the notification; regarding claim 23, a program recording medium recording a wireless data communication network switching program being executed on a device which operates as a intermediary mechanism for a server (Fig. 5, RBS 301) and which controls switching of wireless

data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with a client (Fig. 5, phone 513, Internet user 109) side switching device operating as a intermediary mechanism for a client (Fig. 5, phone 513, Internet user 109) with which the server (Fig. 5, RBS 301) communicates, wherein the wireless data communication network switching program causes a computer to perform: transferring a service (page 5, [0073]) request to the server (Fig. 5, RBS 301) by identifying the server (Fig. 5, RBS 301) pointed to by a port number specified in a service (page 5, [0073]) request issued by the client (Fig. 5, phone 513, Internet user 109); releasing (Fig. 12, Suspend Transmission 1208; Fig. 15, SUSPEND) a session being established in a response to a switching request for the wireless data communication networks (Fig. 5, ISP 110, PSTN 111) in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device; acquiring a communication address (page 6, [0082] to page 7, [0085]; page 8 [0099] to page 9, [0111]) for the client (Fig. 5, phone 513, Internet user 109) side switching device assigned by a wireless data communication network switched by the client (Fig. 5, phone 513, Internet user 109) side switching device in response to the switching request; and resuming (Fig. 12, Resume Transmission 1208; Fig. 15, RESUME) the released session in cooperation with the client (Fig. 5, phone 513, Internet user 109) side switching device following the acquisition. See pages 1-11.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3-7, 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (US 2001/0055286) in view of Forslow (US 6,608,832).

Lin discloses the claimed limitations above. Lin et al. does not disclose the following features: regarding claim 3, means for issuing the switching request by estimating a communication traffic between the client and the server; regarding claim 4, wherein the means for issuing estimates the communication traffic by measuring size of a content to be communicated between the client and the server; regarding claim 5, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated from the content size and when the content is complete; regarding claim 6, wherein the means for issuing estimates a communication traffic from an application type; regarding claim 7, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated from the application type and when the application is terminated; regarding claim 12, means for issuing the switching request by estimating a communication traffic between the client and the server; regarding claim 13, wherein the issuance means estimates the communication traffic by measuring size of a content to be communicated between the client and the server; regarding claim 14, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated from the content size and when the content is complete; regarding claim 15,

wherein the means for issuing estimates a communication traffic from an application type; regarding claim 16, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated from the application type and when the application is terminated.

Forslow disclose a communication system comprising the following features: regarding claim 3, means for issuing the switching request by estimating (Fig. 8) a communication traffic between the client and the server; regarding claim 4, wherein the means for issuing estimates (Fig. 8) the communication traffic by measuring size of a content to be communicated between the client and the server; regarding claim 5, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated (Fig. 8) from the content size and when the content is complete; regarding claim 6, wherein the means for issuing estimates (Fig. 8) a communication traffic from an application type; regarding claim 7, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated (Fig. 8) from the application type and when the application is terminated; regarding claim 12, means for issuing the switching request by estimating (Fig. 8) a communication traffic between the client and the server; regarding claim 13, wherein the issuance means estimates (Fig. 8) the communication traffic by measuring size of a content to be communicated between the client and the server; regarding claim 14, wherein the means for issuing issues another switching request to switch back to the previous wireless data

communication network, after issuing the switching request depending on the communication traffic estimated (Fig. 8) from the content size and when the content is complete; regarding claim 15, wherein the means for issuing estimates (Fig. 8) a communication traffic from an application type; regarding claim 16, wherein the means for issuing issues another switching request to switch back to the previous wireless data communication network, after issuing the switching request depending on the communication traffic estimated (Fig. 8) from the application type and when the application is terminated. See column 8-20.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to use the features, as taught by Forslow, in the system of Lin et al., in order to provide better service for different types of applications. See Forslow, column 7, lines 38-42.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rinne et al. (US 6,693,892) discloses a method of controlling resources.

Bhagavath et al. (US 6,647,001) discloses a communication method.

Dutnall (US 6,584,098) discloses a telecommunication system.

Slekys et al. (US 5,528,664) discloses a cellular phone system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

Kwang B. Yao
July 8, 2005